

# Watertight Pin and Sleeve **Plugs and Connectors**

16A/20A, 30A/32A, 60A/63A and 100A/125A

**INSTALLATION INSTRUCTIONS** 

#### **WARNINGS**

- TO AVOID FIRE SHOCK, OR DEATH, TURN OFF POWER AT CIRCUIT BREAKER OR FUSE, TEST THAT POWER IS OFF BEFORE SERVICING OR WIRING and ensure connections are made in the same sequence as existing device connections.
- These devices conform to IEC standard 60309-1 and 60309-2. The construction is such that each device cannot be mated with another IEC device of different specifications (i.e., voltage, amperage or system rating). For safety purposes, do not use a non-IEC device with these pin and sleeve devices. The specifications for non-IEC devices are established by the individual manufacturers, and may not meet IEC standards. IMPROPER MATING OF DEVICES MAY CAUSE FIRE, SHOCK OR DEATH.

#### **CAUTIONS**

- · Examine devices periodically for any foreign matter that may contaminate the contacts or the insulation material separating the contacts. Contamination decreases the device's insulation properties. This increases the potential for arcing and possibly decreases the product's life and may cause fire and/or shock hazard. The frequency of inspection depends upon the degree of contamination.
- If you are unsure about any part of these instructions, consult an electrician.
- To be installed and/or used in accordance with electrical codes and regulations (Including NEC/CEC, as applicable).
- Use this device only with copper or copper clad wire.

PK-A3278-10-00-0D

**ENGLISH** 

#### **Cleaning Procedures**

WARNING: RISK OF ELECTRIC SHOCK. TURN OFF POWER AT CIRCUIT BREAKER OR FUSE. DO NOT clean this product while undergoing electrical maintenance or service

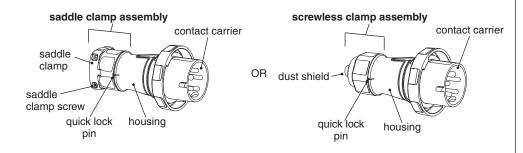
CAUTION: Use only chemicals and cleaning solutions that are safe for use with plastics and rubber gaskets.

CAUTION: DO NOT direct or concentrate high pressure water or cleaning solution on the enclosure gasket seams, switch handle area or exterior labels.

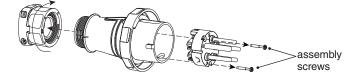
NOTE: Follow general cleaning procedures established by your facility. NOTE: This product is certified by NSF® International to NSF/ANSI/3-A 14159-1.

- a. Use hose directed water or cleaning solution to remove any collected contaminants from behind the enclosure.
- b. Use hose directed water or cleaning solution to remove soil and contaminants from the exterior surfaces of the enclosure.
- c. Use a dry clean cloth to wipe away any excess water.

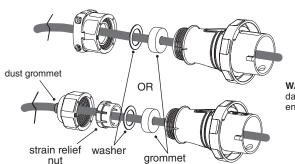
## 16A/20A and 30A/32A Plug Installation



1. Unscrew assembly and contact carrier.



Select grommet (Table 1) thread clamp assembly, washer, grommet and housing onto selected wire (Table 3). NOTE: If using screwless clamp assembly, select strain relief nut first (Table 2).



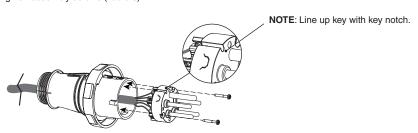
WARNING: To prevent property damage or personal injury, ensure use of correct grommet

Cut and strip cable jacket and conductors (Table 4).

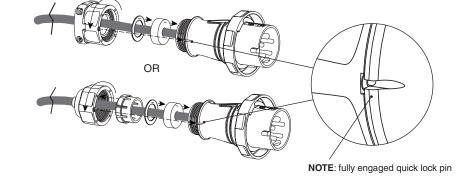
WARNING: TO AVOID FIRE, SHOCK OR DEATH, connections must be made in the same sequence as

Connect wires (Table 5 and Stripping and Wiring Diagram) and tighten terminal screws. NOTE: Reference torque value (Table 6). Allen key included

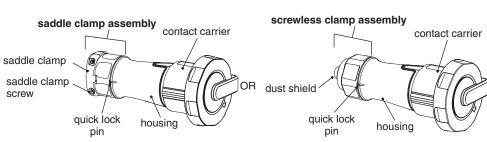
**4.** Reconnect contact carrier. Fighten assembly screws (Table 6).



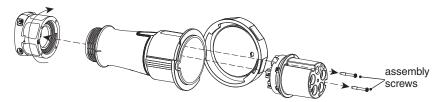
Slide grommet and washer down and seat firmly into housing. Slide saddle clamp assembly or screwless clamp assembly onto housing and screw on until quick lock pin fully engages. Tighten clamp screws



### 16A/20A and 30A/32A Connector Installation

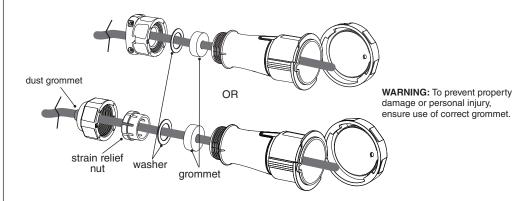


1. Unscrew assembly and contact carrier.



### 2. Thread wire.

Select grommet (Table 1) thread clamp assembly, washer, grommet and housing onto selected wire (Table 3). NOTE: If using screwless clamp assembly, select strain relief nut first (Table 2).



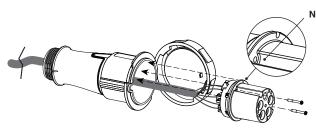
**5.** Reassemble.

Cut and strip cable jacket and conductors (Table 4).

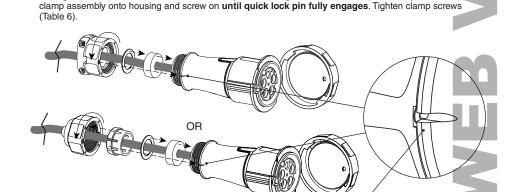
WARNING: TO AVOID FIRE, SHOCK OR DEATH, connections must be made in the same sequence as

Connect wires (Table 5 and Stripping and Wiring Diagram) and tighten terminal screws. NOTE: Reference torque value (Table 6). Allen key included.

**4.** Reconnect contact carrier. Fighten assembly screws (Table 6).



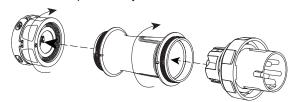
NOTE: Line up key with key notch.



Slide grommet and washer down and seat firmly into housing. Slide saddle clamp assembly or screwless

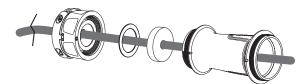
## 60A/63A and 100A/125A Plug Installation

1. Unscrew saddle clamp assembly and contact carrier.



2. Thread wire.

Select grommet (Table 1) thread clamp assembly, washer, grommet and housing onto selected wire (Table 3) **WARNING:** To prevent property damage or personal injury, ensure use of correct grommet.



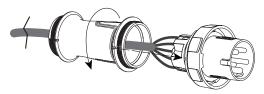
**3.** Wire.

Cut and strip cable jacket and conductors (Table 4).

**WARNING:** TO AVOID FIRE, SHOCK OR DEATH, connections must be made in the same sequence as existing device connections.

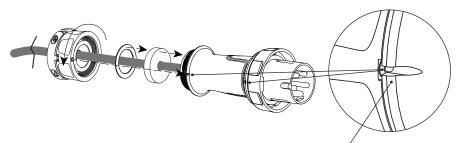
Connect wires (Table 5 and Stripping and Wiring Diagram) and tighten terminal screws. **NOTE**: Reference torque value (Table 6). Allen key included.

4. Reconnect contact carrier.



5. Reassemble.

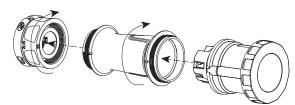
Slide grommet and washer down and seat firmly into housing. Slide saddle clamp assembly or screwless clamp assembly onto housing and screw on **until quick lock pin fully engages**. Tighten clamp screws (Table 6).



NOTE: fully engaged quick lock pin

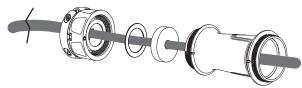
# 60A/63A and 100A/125A Connector Installation

1. Unscrew saddle clamp assembly and contact carrier.



2. Thread wire.

Select grommet (Table 1) thread clamp assembly, washer, grommet and housing onto selected wire (Table 3). **WARNING:** To prevent property damage or personal injury, ensure use of correct grommet.



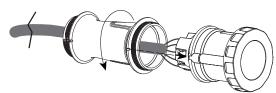
**3.** Wire.

Cut and strip cable jacket and conductors (Table 4).

WARNING: TO AVOID FIRE, SHOCK OR DEATH, connections must be made in the same sequence as existing device connections.

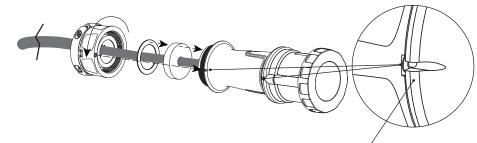
Connect wires (Table 5 and Stripping and Wiring Diagram) and tighten terminal screws. **NOTE**: Reference torque value (Table 6). Allen key included.

**4.** Reconnect contact carrier.



**5.** Reassemble.

Slide grommet and washer down and seat firmly into housing. Slide saddle clamp assembly or screwless clamp assembly onto housing and screw on **until quick lock pin fully engages**. Tighten clamp screws (Table 6)



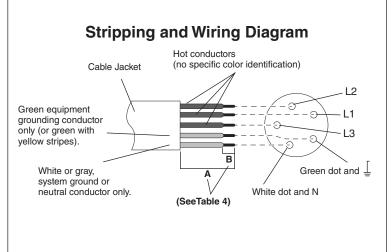
NOTE: fully engaged quick lock pin

1 20A 3-4 Wire Grommet Usage				
Amperage	Wire Diameter (in)	Wire Diameter (mm)	Grommet Marking	
	0.300 - 0.425	7.620 -10.795	V	
	0.425 - 0.550	10.795 -13.970	W	
16A/20A	0.550 - 0.675	13.970 - 17.145	Х	
	0.675 - 0.860	17.145 - 21.844	Y	
20A 5	Wire & 30A 3,	4, 5 Wire Grom	met Usage	
	0.325 - 0.500	8.255 - 12.700	Т	
	0.500 - 0.625	12.700 - 15.875	S	
16A/20A &	0.625 - 0.750	15.875 - 19.050	R	
30A/32A	0.750 - 0.875	19.050 - 22.225	Q	
	0.875 - 1.000	22.225 - 25.400	Р	
	1.000 - 1.125	25.400 - 28.575	0	
	60A Gro	mmet Usage		
	0.600 - 0.725	15.240 - 18.415	N	
	0.725 - 0.850	18.415 - 21.590	М	
	0.850 - 0.975	21.590 - 24.765	L	
60A/63A	0.975 - 1.163	24.765 - 29.540	K	
	1.163 - 1.350	29.540 - 34.290	J	
	1.350 - 1.475	34.290 - 37.465	I	
	1.475 - 1.600	37.465 - 40.640	Н	
	100A Gr	ommet Usage		
	0.725 - 0.850	18.415 - 21.590	А	
4004/4054	0.850 - 0.975	21.590 - 24.765	В	
	0.975 - 1.163	24.765 - 29.540	С	
	1.163 - 1.350	29.540 - 34.290	D	
100A/125A	1.350 - 1.475	34.290 - 37.465	Е	
	1.475 - 1.600	37.465 - 40.640	F	
	1.600 - 1.775	40.640 - 45.085	G1	
	1.775 - 1.950	45.085 - 49.530	G2	

	1.770 1.000	40.000 40.000	U 02				
_							
20A 3-4 Wire Strain Relief Nut & Dust Shield Usage							
Amperage	Wire Diameter (in)	Wire Diameter (mm)	Strain Relief Nut & Dust Shield Marking				
	0.300 - 0.425	7.620 -10.795	V				
404/004	0.425 - 0.550	10.795 -13.970	W				
16A/20A	0.550 - 0.675	13.970 - 17.145	Х				
	0.675 - 0.860	17.145 - 21.844	Υ				
20 A 5 Wire & 30A 3, 4 and 5 Wire Strain Relief Nut & Dust Shield Usage							
-	0.325 - 0.500	8.255 - 12.700	Т				
16A/20A & 30A/32A	0.500 - 0.625	12.700 - 15.875	S				
	0.625 - 0.750	15.875 - 19.050	R				
	0.750 - 0.875	19.050 - 22.225	Q				
	0.875 - 1.000	22.225 - 25.400	Р				
	1.000 - 1.125	25.400 - 28.575	0				

Device         From         To         Grip Range Min./Max. Wire Diam. (in)         Min./Max. Wire Diam. (in)         Britance Min./Max. Wire Diam. (in)	(3)					Wire	Sizes		
AWG COND TYPE AWG COND TYPE Wire Diam. (in) Wire Diam. (mm)    16A/20A	Device	From		То			Grip Range	Grip Range	
16A/20A #14 4 5 S 0.330/0.830 8/21  3 3 3 3 3 S OF W 0.580/1.125 15/29  5 5 5 5 0.875/1.450 22/37  100A/ 125A #6 4 W #1 4 0.725/1.890 18/48	Device	AWG	COND	TYPE	AWG	COND	TYPE		Wire Diam. (mm)
5 S 5 S 5 S 3 3 S S 5 S S 5 S S S S S S			3			3			
3 3 3 4 5 or W 0.580/1.125 15/29 5 5 5 6 60A/63A #8 4 S or W #2 4 5 5 5 5 6 5 6 60A/63A #6 4 W #1 4 0.725/1.890 18/48	16A/20A	#14	4		#10	4	S	0.330/0.830	8/21
30A/32A #12			5	٥		5			
5 5 5 3 60A/63A #8 4 S or W #2 4 0.875/1.450 22/37 5 W 100A/ 125A #6 4 W #1 4 0.725/1.890 18/48			3	3		3			
60A/63A #8 4 S or W #2 4 0.875/1.450 22/37  5 W #100A/ 125A #6 4 W #1 4 0.725/1.890 18/48	30A/32A	#12	4		#8	4	S or W	0.580/1.125	15/29
60A/63A #8 4 S or W #2 4 0.875/1.450 22/37  5 W #100A/ 125A #6 4 W #1 4 0.725/1.890 18/48			5			5			
5 5 W #1 4 0.725/1.890 18/48			3			3			
100A/ 125A #6 4 W #1 4 0.725/1.890 18/48	60A/63A	#8	4	S or W	#2	4		0.875/1.450	22/37
100A/ 125A #6 4 W #1 4 0.725/1.890 18/48			5			5	۱۸/		
125A #6 4 W #1 4 0.725/1.890 18/48			3			3	vv		
5 5		4	w	#1	4		0.725/1.890	18/48	
			5			5			

Cable and Wire Stripping Guide						
Davida	NI- 146	Conductor	Cable Jacket (A)		Conductor (B)	
Device	Device No. Wires		Inches	mm	Inches	mm
16A/20A		All	1.375	35	0.375	10
30A/32A	All		1.625	41	0.625	16
60A/63A			3.5	89	1	25
100A/125A			4.25	108	1	25



5 Terminal identification Chart				
and green color	Equipment ground conductor			
N and white color	Grounded circuit conductors (neutral)			
L1, L2, L3	Ungrounded circuit conductors (line, hot)			
Pilot	Control circuit conductor.			

6	Screw Tightening Guide in-lbs (N-m)					
Device	Terminal Screws	Pilot Terminal Screws	Assembly Screws	Cable Clamp Screws		
16A/20A			8 (0.9)	10 (1.13)		
30A/32A	20 (2.26)	N/A				
60A/63A	50 (5.05)	()				
100A/125A	50 (5.65)	20 (2.26)	N/A	15 (1.69)		

### LIMITED 5 YEAR WARRANTY AND EXCLUSIONS

Leviton warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Leviton is free of defects in materials and workmanship under normal and proper use for five years from the purchase date. Leviton's only obligation is to correct such defects by repair or replacement, at its option. For details visit www.leviton.com or call 1-800-824-3005. This warranty excludes and there is disclaimed liability for labor for removal of this product or reinstallation. This warranty is void if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for a particular purpose, is limited to five years. Leviton is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation. The remedies provided herein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise.

### FOR CANADA ONLY

For warranty information and/or product returns, residents of Canada should contact Leviton in writing at Leviton Manufacturing of Canada ULC to the attention of the Quality Assurance Department, 165 Hymus Blvd, Pointe-Claire (Quebec), Canada H9R 1E9 or by telephone at 1 800 405-5320.